

Application No.: 10/582,006
Filing Date: June 7, 2006

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A ~~substantially pure polypeptide comprising a fully human monoclonal antibody or a humanized chimpanzee monoclonal antibody, or binding fragment thereof~~ that binds ~~or neutralizes~~ dengue type 1, 2, 3, and/or 4 virus, comprising:

~~wherein said antibody includes a heavy chain CDR1 polypeptide having the amino acid sequence of SEQ ID NO: 3, a heavy chain CDR2 polypeptide having the amino acid sequence of SEQ ID NO: 5 and a heavy chain CDR3 region polypeptide having the amino acid sequence of SEQ ID NO: 7; and~~

~~a light chain CDR1 polypeptide having the amino acid sequence of SEQ ID NO: 11, a light chain CDR2 polypeptide having the amino acid sequence of SEQ ID NO: 13 and a light chain CDR3 polypeptide having the amino acid sequence of SEQ ID NO: 15.~~

2. (Currently Amended) The ~~substantially pure polypeptide antibody or binding fragment~~ of Claim 1 wherein said ~~antibody binding fragment~~ comprises an Fd Fv fragment.

3. (Currently Amended) The ~~substantially pure polypeptide antibody or binding fragment~~ of Claim 1 wherein said ~~antibody binding fragment~~ comprises an Fab fragment.

4. (Currently Amended) The ~~substantially pure polypeptide antibody or binding fragment~~ of Claim 1 wherein said ~~antibody is a fully human monoclonal antibody includes a heavy chain CDR3 region having the amino acid sequence of SEQ ID NO: 7.~~

5. (Currently Amended) The ~~substantially pure polypeptide of Claim 1 wherein said antibody includes a heavy chain CDR2 region having the amino acid sequence of SEQ ID NO: 5 (when heavy chain CDR3 region is SEQ ID NO: 7), 21 (when heavy chain CDR3 region is SEQ ID NO: 23), 37 (when heavy chain CDR3 region is SEQ ID NO: 39), 53 (when heavy chain CDR3 region is SEQ ID NO: 55), 69 (when heavy chain CDR3 region is SEQ ID NO: 71), 85 (when heavy chain CDR3 region is SEQ ID NO: 87), 101 (when heavy chain CDR3 region is SEQ ID NO: 103), 117 (when heavy chain CDR3 region is SEQ ID NO: 119), 133 (when heavy chain CDR3 region is SEQ ID NO: 135), 149 (when heavy chain CDR3 region is SEQ ID NO: 151), 165 (when heavy chain CDR3 region is SEQ ID NO: 167), or 181 (when heavy chain CDR3 region is SEQ ID NO: 183) antibody or binding fragment of Claim 1, wherein said antibody is a humanized chimpanzee monoclonal antibody.~~

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6. (Currently Amended) The substantially pure polypeptide of Claim 5 wherein said antibody includes a heavy chain CDR1 region having the amino acid sequence of SEQ ID NO: 3 (when heavy chain CDR3 region is SEQ ID NO: 7), 19 (when heavy chain CDR3 region is SEQ ID NO: 23), 35 (when heavy chain CDR3 region is SEQ ID NO: 39), 51 (when heavy chain CDR3 region is SEQ ID NO: 55), 67 (when heavy chain CDR3 region is SEQ ID NO: 71), 83 (when heavy chain CDR3 region is SEQ ID NO: 87), 99 (when heavy chain CDR3 region is SEQ ID NO: 103), 115 (when heavy chain CDR3 region is SEQ ID NO: 119), 131 (when heavy chain CDR3 region is SEQ ID NO: 135), 147 (when heavy chain CDR3 region is SEQ ID NO: 151), 163 (when heavy chain CDR3 region is SEQ ID NO: 167), or 179 (when heavy chain CDR3 region is SEQ ID NO: 183) antibody or binding fragment of Claim 1, wherein said antibody or binding fragment binds to a plurality of dengue serotypes.

7. (Currently Amended) The substantially pure polypeptide of Claim 1 wherein said antibody includes a heavy chain Fd region including the amino acid sequence of SEQ ID NO: 1 (when heavy chain CDR3 region is SEQ ID NO: 7), 17 (when heavy chain CDR3 region is SEQ ID NO: 23), 33 (when heavy chain CDR3 region is SEQ ID NO: 39), 49 (when heavy chain CDR3 region is SEQ ID NO: 55), 65 (when heavy chain CDR3 region is SEQ ID NO: 71), 81 (when heavy chain CDR3 region is SEQ ID NO: 87), 97 (when heavy chain CDR3 region is SEQ ID NO: 103), 113 (when heavy chain CDR3 region is SEQ ID NO: 119), 129 (when heavy chain CDR3 region is SEQ ID NO: 135), 145 (when heavy chain CDR3 region is SEQ ID NO: 151), 161 (when heavy chain CDR3 region is SEQ ID NO: 167), or 177 (when heavy chain CDR3 region is SEQ ID NO: 183) antibody or binding fragment of Claim 1, wherein the antibody or binding fragment comprises a heavy chain polypeptide having the amino acid sequence of SEQ ID NO: 1.

8. (Currently Amended) The substantially pure polypeptide of Claim 1 wherein said antibody includes a light chain CDR3 region having the amino acid sequence of SEQ ID NO: 15 (when heavy chain CDR3 region is SEQ ID NO: 7), 31 (when heavy chain CDR3 region is SEQ ID NO: 23), 47 (when heavy chain CDR3 region is SEQ ID NO: 39), 63 (when heavy chain CDR3 region is SEQ ID NO: 55), 79 (when heavy chain CDR3 region is SEQ ID NO: 71), 95 (when heavy chain CDR3 region is SEQ ID NO: 87), 111 (when heavy chain CDR3 region is SEQ ID NO: 103), 127 (when heavy chain CDR3 region is SEQ ID NO: 119), 143 (when heavy

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~~chain CDR3 region is SEQ ID NO: 135), 159 (when heavy chain CDR3 region is SEQ ID NO: 151), 175 (when heavy chain CDR3 region is SEQ ID NO: 167), or 191 (when heavy chain CDR3 region is SEQ ID NO: 183) antibody or binding fragment of Claim 1, wherein the antibody or binding fragment comprises a light chain polypeptide having the amino acid sequence of SEQ ID NO: 9.~~

9. (Currently Amended) ~~The substantially pure polypeptide of Claim 8 wherein said antibody includes a light chain CDR2 region having the amino acid sequence of SEQ ID NO: 13 (when heavy chain CDR3 region is SEQ ID NO: 7), 29 (when heavy chain CDR3 region is SEQ ID NO: 23), 45 (when heavy chain CDR3 region is SEQ ID NO: 39), 61 (when heavy chain CDR3 region is SEQ ID NO: 55), 77 (when heavy chain CDR3 region is SEQ ID NO: 71), 93 (when heavy chain CDR3 region is SEQ ID NO: 87), 109 (when heavy chain CDR3 region is SEQ ID NO: 103), 125 (when heavy chain CDR3 region is SEQ ID NO: 119), 141 (when heavy chain CDR3 region is SEQ ID NO: 135), 157 (when heavy chain CDR3 region is SEQ ID NO: 151), 173 (when heavy chain CDR3 region is SEQ ID NO: 167), or 189 (when heavy chain CDR3 region is SEQ ID NO: 183) antibody or binding fragment of Claim 1, wherein said antibody or binding fragment neutralizes dengue type 1, 2, 3 or 4.~~

10.-12. (Cancelled)

13. (Currently Amended) An isolated nucleic acid molecule having a nucleotide sequence encoding the heavy chain polypeptide of Claim 7. ~~The substantially pure polypeptide of Claim 12 wherein said antibody includes a light chain region including the CDR amino acid sequences of SEQ ID NOS: 11 and 13 (when heavy chain CDR3 region is SEQ ID NO: 7), 27 and 29 (when heavy chain CDR3 region is SEQ ID NO: 23), 43 and 45 (when heavy chain CDR3 region is SEQ ID NO: 39), 59 and 61 (when heavy chain CDR3 region is SEQ ID NO: 55), 75 and 77 (when heavy chain CDR3 region is SEQ ID NO: 71), 91 and 93 (when heavy chain CDR3 region is SEQ ID NO: 87), 107 and 109 (when heavy chain CDR3 region is SEQ ID NO: 103), 123 and 125 (when heavy chain CDR3 region is SEQ ID NO: 119), 139 and 141 (when heavy chain CDR3 region is SEQ ID NO: 135), 155 and 157 (when heavy chain CDR3 region is SEQ ID NO: 151), 171 and 173 (when heavy chain CDR3 region is SEQ ID NO: 167), or 187 and 189 (when heavy chain CDR3 region is SEQ ID NO: 183).~~

14. (Currently Amended) An isolated nucleic acid molecule having comprising a nucleotide sequence encoding the light chain polypeptide of Claim 8, ~~a polypeptide selected from the group consisting of the polypeptide of Claim 1, the polypeptide of Claim 2, the polypeptide of Claim 3, the polypeptide of Claim 4, the polypeptide of Claim 5, the polypeptide of Claim 6, the polypeptide of Claim 7, the polypeptide of Claim 8, the polypeptide of Claim 9, the polypeptide of Claim 10, the polypeptide of Claim 11, the polypeptide of Claim 12, and the polypeptide of Claim 13.~~

15. (Currently Amended) A host cell comprising the isolated nucleic acid molecule of Claim 13. ~~An isolated nucleic acid molecule as in Claim 14, wherein said nucleic acid comprises a vector including a regulatory sequence operably joined to said nucleic acid.~~

16. (Currently Amended) A host cell ~~including a vector~~ comprising the isolated a nucleic acid molecule of Claim 14.

17. (Currently Amended) A pharmaceutical preparation comprising
a pharmaceutically acceptable carrier; and

the antibody or binding fragment of Claim 1. ~~a substantially pure polypeptide selected from the group consisting of the polypeptide of Claim 1, the polypeptide of Claim 2, the polypeptide of Claim 3, the polypeptide of Claim 4, the polypeptide of Claim 5, the polypeptide of Claim 6, the polypeptide of Claim 7, the polypeptide of Claim 8, the polypeptide of Claim 9, the polypeptide of Claim 10, the polypeptide of Claim 11, the polypeptide of Claim 12, and the polypeptide of Claim 13.~~

18. (Currently Amended) A diagnostic preparation comprising
a pharmaceutically acceptable carrier; and

the antibody or binding fragment of Claim 1. ~~a substantially pure polypeptide selected from the group consisting of the polypeptide of Claim 1, the polypeptide of Claim 2, the polypeptide of Claim 3, the polypeptide of Claim 4, the polypeptide of Claim 5, the polypeptide of Claim 6, the polypeptide of Claim 7, the polypeptide of Claim 8, the polypeptide of Claim 9, the polypeptide of Claim 10, the polypeptide of Claim 11, the polypeptide of Claim 12, and the polypeptide of Claim 13.~~

19. (Original) A method for the treatment of dengue virus disease comprising administering to a patient a therapeutically effective amount of the pharmaceutical preparation of Claim 17.
20. (Original) A method for prophylaxis against dengue virus disease comprising administering to a patient a prophylactically effective amount of the pharmaceutical preparation of Claim 17.
21. (Currently Amended) A method for the diagnosis of dengue virus disease comprising:
administering to a patient an effective amount of the diagnostic preparation of Claim 18, and
detecting binding of the ~~substantially pure polypeptide~~ antibody as a determination of the presence of dengue virus disease.
22. (Currently Amended) A method of detecting the presence of dengue virus in a biological sample comprising:
contacting said sample with the diagnostic preparation of Claim 18, and
assaying binding of the ~~substantially pure polypeptide~~ antibody as a determination of the presence of said dengue virus.
23. (Previously Presented) Humanized IgG1 5H2 plasmid deposited with ATCC as ATCC Accession No. PTA-5662.
24. (Withdrawn) Humanized IgG1 1A5 plasmid deposited with ATCC as ATCC Accession No. PTA-6265.
25. -31(Cancelled).
32. (Previously Presented) An isolated humanized chimpanzee monoclonal antibody that neutralizes dengue virus, wherein said antibody is produced by a plasmid having ATCC Accession No. PTA-5662.
33. (Previously Presented) An isolated humanized chimpanzee monoclonal antibody that neutralizes dengue virus, wherein said antibody is produced by a plasmid having ATCC Accession No. PTA-6265.
34. (Previously Presented) A substantially pure antibody comprising

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SEQ ID NO.: 3, SEQ ID NO.: 5, SEQ ID NO.: 7, SEQ ID NO.: 11, SEQ ID NO.: 13, and SEQ ID NO.: 15.

35. (New) The substantially pure antibody of claim 34, which is a monoclonal antibody.

36. (New) The substantially pure antibody of claim 35, wherein the monoclonal antibody is fully human.

37. (New) The substantially pure antibody of claim 35, wherein the monoclonal antibody is a humanized chimpanzee monoclonal antibody.

38. (New) A monoclonal antibody or binding fragment thereof that binds to dengue type 1, 2, 3, or 4 virus, wherein said antibody or binding fragment comprises a heavy chain polypeptide having the amino acid sequence of SEQ ID NO: 1 and a light chain polypeptide having the amino acid sequence of SEQ ID NO:9.